<u>IN THE DRAWINGS</u>

The attached sheets (2) of drawings includes changes to Figs. 1 and 2. These sheets,

which includes Figs. 1 and 2, replace the original sheets including Figs. 1 and 2.

Attachment: Replacement Sheets (2)

REMARKS/ARGUMENTS

Favorable reconsideration of this application, as presently amended and in light of the following discussion, is respectfully requested.

Claims 1-9 are pending in the present application. Claims 7-9 are amended; and Claims 10-12 are canceled without prejudice or disclaimer by the present amendment. Support for the amended claims can be found in the original specification, claims and drawings.[1] No new matter is presented.

In the Office Action, the drawings and specification were objected to because of minor informalities; Claims 7-9 were rejected under 35 U.S.C. § 101 as directed to non-statutory subject matter; Claims 1-3, 5 and 6 were allowed; and Claims 4 and 7-9 were indicated as allowable if amended to overcome the objection and rejections noted above.

Applicant respectfully acknowledges the indication of allowable subject matter.

The Office Action objected to the drawings for failing to include reference character "S3" described at p. 10, ll. 10-11 of the specification, and "32" described at p. 14, l. 7 of the specification. In response, Fig. 1 is amended to show that "S3" corresponds to the data output from the initialization processing circuit 3. Also Fig. 2 is amended to include reference numeral "32", which refers to the nonlinear conversion circuits S in the nonlinear conversion portion 25. Further, the line corresponding to reference character "S3a" in Fig. 1 is modified so as to not overlap the line corresponding to the input of the function circuit 11, as requested in the Office Action.

Accordingly, Applicant respectfully requests that the objection to the drawings be withdrawn.

The Office Action also objected to the title as not descriptive of the claimed invention. In response, the title is amended to recite "Linear Conversion Circuit and

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[1] Claims 7-9 are amended to address the rejection under 35 U.S.C. § 101; and Claim 9 is further amended to avoid interpretation under 35 U.S.C. § 112, sixth paragraph.

Encryption Circuit" as recommended in the Office Action. Accordingly, Applicant respectfully requests that the objection to the specification in this regard be withdrawn.

The Office Action also objected to the specification and Claim 4 for including the argument "I" in the equations defining matrices "D" and "A." Applicant respectfully traverses these objections, as the argument "I" is properly included in Claim 4 and in each of equations 2-5 and 7 at pp. 18-19 of the specification.

More particularly, the argument "I" is well known in linear algebra to correspond to an identity matrix, which is a matrix with ones on the main diagonal and zeros elsewhere. Sizes of identity matrices may be defined by a subscript indicating the number of columns or rows, but are generally referred to as "I" if the size is immaterial or can be trivially determined by the context. In the case of the present disclosure, the size of the identity matrix is clearly defined by the context of p. 17, l. 15-p. 19, l. 5 of the specification.

As described at p. 17, ll. 16-19, each of matrices D_1, D_2, D_3, and D_4 are defined using conversion matrices C_1, C_2, C_3 and C_4, which are each 4 by 4 matrices. Further, as described at p. 17, ll. 20-22, each of matrices D_1, D_2, D_3, and D_4 are 8 by 8 matrices. Thus, in equations 2-5 at p. 18 of the specification, each of the 4 by 4 C matrices fill out one quadrant of each of the 8 by 8 D matrices, while the identity matrices "I" are 4 by 4 matrices filling out the respective quadrants of each of the D matrices to which they are assigned.

Therefore, the argument "I" used in the equation in Claim 4, and in equations 2-5 and 7 at pp. 18-19 of the specification properly refers to an identity matrix, and should not be relabeled as number "1". Accordingly, Applicant respectfully requests that the objection to the specification and Claim 4 on this ground be withdrawn.

The Office Action rejected Claims 7-9 under 35 U.S.C. § 101 as directed to non-statutory subject matter.

Particularly, Claims 7-8 were rejected as being "functional descriptive material that is not tangibly embodied." In response, Claim 7 is amended to recite "a computer-readable medium including a program to be executed by a computer..." Further, Claim 9 was rejected because the features are recited as "means, all of which may be implemented in software." In response, Claim 9 is amended to recite that "a processor" is configured to perform the functions recited in the claims. Support for amended Claims 7-9 can be found at least a Fig. 3 and its corresponding description in the specification.
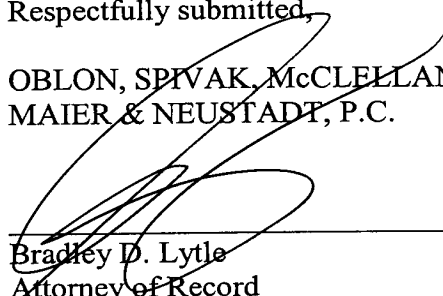
Accordingly, Applicant respectfully requests that the rejection of Claim 7-9 under 35 U.S.C. § 101 be withdrawn.

Consequently, no further issues are believed to be outstanding in the present application, and the present application is believed to be in condition for formal allowance. Therefore, a Notice of Allowance is earnestly solicited.

Should the Examiner deem that any further action is necessary to place this application in even better form for allowance, the Examiner is encouraged to contact the undersigned representative at the below listed telephone number.

Respectfully submitted,

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